

WHAT IS CLAIMED IS:

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1. An imaging sensor which includes:
a sensor array segmented into plural
disjoint segments;
a respective plurality of output pipelines,
one of said output pipelines corresponding to each
of said plural segments of the sensor array; and
means for duplicating image data for an
overlap region at each boundary between segments.
2. An imaging sensor according to Claim 1,
wherein said means for duplicating image data
comprises charge or voltage duplicating circuitry
that obtains multiple outputs for each pixel in the
overlap region, and wherein said duplication
circuitry provides each of the multiple outputs to
individual ones of said output pipelines that border
on the overlap region.
3. An imaging sensor according to Claim 1,
further comprising a respective plurality of
processors, each processor coupled to a respective
one of the output pipelines, and wherein said means
for duplicating includes an output pipeline for
outputting pixel values of pixels in the overlap
region to an intermediate buffer, the intermediate
buffer providing duplicate pixel values to each
processor whose segment borders the overlap region.
4. An imaging sensor according to Claim 3,
wherein the intermediate buffer is provided off-chip
from the sensor array.
5. An imaging sensor according to Claim 1,
further comprising a respective plurality of
processors, each processor coupled to a respective

one of the output pipelines, and wherein said means for duplicating comprises a communication link between processors that border the overlap region, and wherein duplicate pixels are communicated between processors over the communication link.

6. A method in an imaging sensor which includes a sensor array segmented into plural disjoint segments including at least a first segment and a second segment separated by a boundary, the method comprising the step of duplicating image data for an overlap region at the boundary.

7. A method according to Claim 6, wherein said step of duplicating image data further comprises the steps of:

storing charges or voltages from a non-overlap region of the first segment into a output pipeline;

storing charges or voltages from the overlap region of the first segment and the second segment into the output pipeline; and

providing charges or voltages from the output pipeline to a processor.

8. A method according to Claim 6, wherein said step of duplicating image data further comprises the steps of:

storing charges or voltages from a non-overlap region of the first segment into a pipeline;

sending charges or voltages from the overlap region of the first segment and the second segment to a shift out line;

storing charges or voltages from the shift out line to an intermediate buffer; and

providing charges or voltages from the pipeline and from the intermediate buffer to a processor.

5 9. A method according to Claim 8, wherein the intermediate buffer is provided off-chip from the sensor array.

10 10. A method according to Claim 6, wherein said step of duplicating image data further comprises the steps of:

storing charges or voltages from the first segment into a pipeline;

15 providing charges or voltages from the pipeline to a first processor, the first processor for processing pixel data for the first segment; and

20 communicating pixel data for the overlap region between the first processor and a second processor, the second processor for processing pixel data for the second segment.